

### **Abstract**

[Subject]      The aim is to provide a separation membrane which can fulfill both high separation capability and high permeation rate.

5    [Solving Means]    The disclosed is separation membrane which comprises a porous substrate which is made of ceramic sintered body of which a main ingredient is alumina, and a zeolite membrane which is formed over the surface of the porous substrate, wherein the porous substrate comprises a base layer  
10    and a foundation layer which is formed on the base layer and is formed for the zeolite membrane, and the separation membrane is characterized in that a mean pore diameter of the foundation layer is smaller than a mean pore diameter of the base layer.